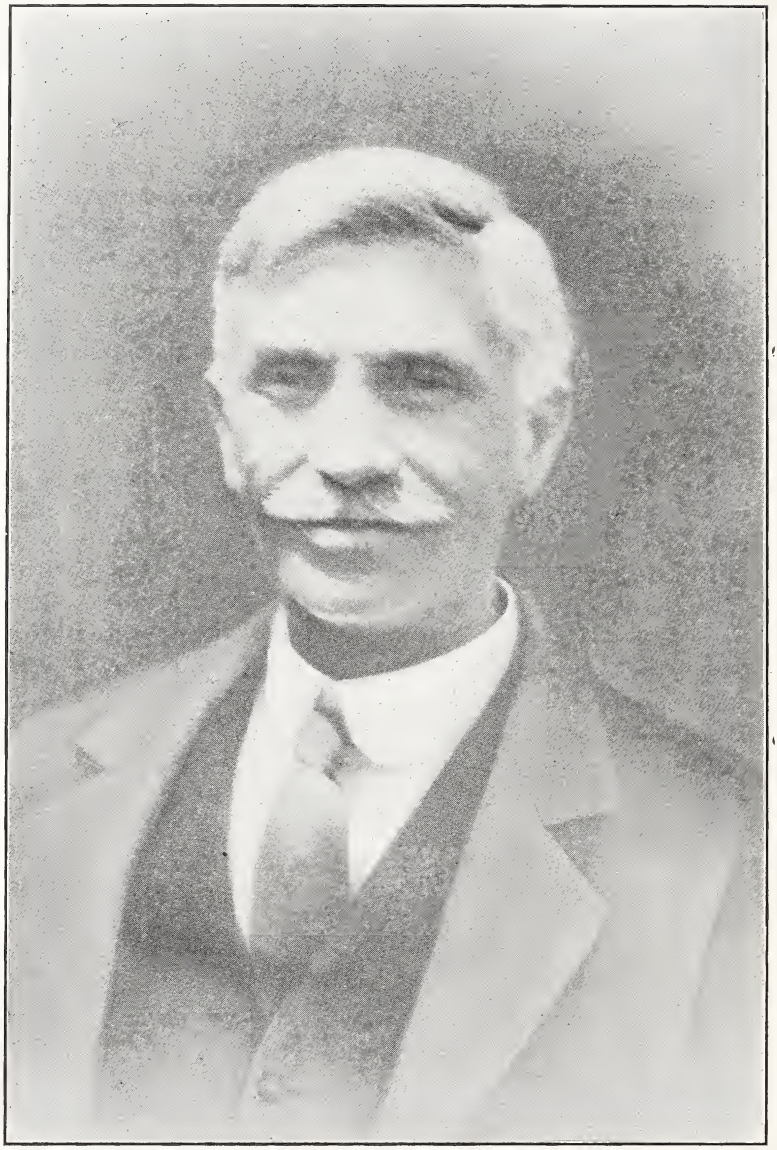
Hardy Nut Trees

J. F. JONES NURSERIES

Lancaster, Penna.



The above is a photograph of the late J. F. Jones, who died at his home January 11, 1928.

Mr. Jones owned and operated this nursery. He was one of the original propagators of the pecan in the south and the first extensive propagator of nut trees in the north, and was recognized by all as an authority on nut trees.

The pages of this catalogue are made up of information taken from his former catalogue. It will be wise for those wanting to secure his fine, hardy trees to order at once. All stock now in the nursery will be sold.

Terms And Suggestions

OUR NURSERIES ARE LOCATED about four miles south of Lancaster on State Route No. 222, in a section noted for its fine farms and productive soil. We have the main lines of the Pennsylvania and Reading railroads which insures the prompt delivery of shipments at nominal rates.

WHEN TO PLANT. Our heardy Pennsylvania Grown Trees may be planted either spring or fall. Trees may be planted any time they are dormant, (which is from October 1st to June 1st here), and the ground is not frozen hard. The usual shipping season is October 1st to December 20th in the fall and March 1st to June 1st in the spring.

REMITTANCES may be made in any way that is convenient. Personal checks from responsible parties accepted at par. Orders not accompanied by remittance will be sent C. O. D., unless party is known to us.

NON-GUARANTY. We guarantee all trees sent out to be of the size and quality specified, but like most other firms do not guarantee trees to grow. We take extra pains to see that all trees sent out are well grown, true to label and in condition to live and grow, but since we have no influence over conditions surrounding the trees or over their planting and care, after they pass out of our hands, we cannot assume responsibility for any customers losses resulting from failure to make the trees grow for any reason. Where customers receive trees from us that they feel are not up to our usual high standard, we will take it as a favor if they write us fully in the case. We will be glad to make good mistakes of any kind, but complaints or claims, to receive attention, must be made as soon as shipment has been received and inspected. Otherwise the transaction will be considered as closed and my books closed against it and no claims thereafter will be entertained.

Future Crops Will Be Tree Crops

"Tree Crops" will be the slogan of the future, and the most important of these by far, are the nut bearing trees. The apple, peach and other soft fruits are good to eat, to be sure, but they have little actual food value in comparison to nuts. Nuts are the most concentrated and complete natural food product known to man and require no preparation whatever, being ready to serve as the kernels come from the shell, or they may be combined with other food elements and made up into various attractive and delicious foods. Since nuts are very rich and have a high protein and fat content, they are admirably adapted to use with other foods, the most of which are deficient in these elements, and fit in well in almost any food combination.

The production of nuts has not kept pace with consumption in this country and the demand very greatly exceeds the supply. If the supply of common wild nuts that go to make up the bulk of our supply at the present time were of fine budded or grafted sorts, consumption of nuts would be twenty times as great as it is today, provided the supply was available at a reasonable price.

Facilities For Growing Nut Trees

We have gathered together here the largest and most valuable collection of new and rare varieties of nuts to be found. Owing to the difficulties encountered in the propagation of nut trees and especially in grafting with scions from old bearing trees, working up Mother Blocks and stocks of trees is slow and expensive. Our Mother Blocks, having been grafted direct from the original trees, have taken considerable time and expense to build up, but taking scions for propagation from these first generations, pedigreed trees, insures both the genuineness of the varieties and early and prolific bearing of the trees. Our soil and climatic conditions here are very favorable for

the growing of this class of stock and we get here a very stocky tree with a well matured and well ripened wood growth that may be safely planted anywhere that nuts can be grown.

Growing Nut Trees With Superior Roots

Although conditions here are very favorable for both root and top development, we greatly improve the root system by an improved method of transplanting the young trees. These trees, as we grow them, have more compact and much better root systems. This adds considerably to the cost of the trees, but it is necessary if the trees are to be transplanted successfully later on. Such trees are not obtainable elsewhere.

One of my English Walnut Trees eight years old on the famous Grand View Poultry Farms, Aurora, N. Y.

Plant Only Budded Or Grafted Trees

We are sometimes asked what are the advantages of budded or grafted trees over seedlings. The difference is the same as with fruit trees.. Varieties of either fruit or nuts can only be perpetuated by budding or grafting. If we want a Baldwin apple orchard, we do not attempt to grow the trees by planting Baldwin apple seed, because we know that these seedlings will not hold true to type or variety and that fruit of all sizes, shapes and colors will be produced when the trees come into bearing. We also know that these seedling trees will vary as much in vigor and productiveness as in the fruit borne and that they will take two or three times as long to come into bearing as do the grafted or budded trees. The same applies to nuts and it would be just as reasonable to plant a seedling apple orchard as to plant a seedling

nut orchard. The only difference is, grafted varieties of nuts have not been available till recent years and people have become accustomed to planting seedling trees. By growing grafted or budded trees of improved varieties of nuts we put nut culture on the same plane with fruit growing and there is nothing in the orchard line that promises greater returns to the orchardist than the planting of these improved budded and grafted varieties.

Hardiness Of Nut Trees

We grow only hardy northern varieties of nut trees. All trees offered are grown here in our Pennsylvania Nurseries and are perfectly hardy and reliable.

The extreme cold winter of 1917-18 was a severe test, but we did not lose any trees from frost and none had any protection whatever. Spring, 1918, many reports came in from customers expressing surprise and satisfaction with the hardiness of our hardy budded and grafted trees. Several customers in Michigan and New York reported that their English walnut trees from here went through the winter in good condition, while apple trees suffered badly, many orchards being killed.

Ornamental Value Of Nut Trees

It seems hard for some people to get away from the idea that they must plant maples, poplars or other worthless trees, simply because others are planting them, when nut trees are far more ornamental; make just as good shade trees and in addition produce a bountiful supply of nuts for home use, if trees of good budded or grafted varieties are planted.

What constitutes an ornamental tree? The two factors of prime importance and which the landscape architect looks too, especially are beauty and rarity. He is willing to sacrifice much of the former if a specimen is rare. If one goes into a well planted place, the trees and shrubs one sees every day are hardly noticed, but new or rare specimens attract one's attention at once. A lawn or home grounds planted with nut trees will attract more attention than any other planting that can be made. The early bearing of the grafted trees enhance their attractiveness as well as their usefulness.

Shrubbery or herbaceous plants can be planted between or around the nut trees the same as with other trees. These trees, being deep rooted, will not suffer because of being near the shrubbery, provided the soil is fertile, and the shrubbery will do better near these trees than they will when planted near ordinary shade trees which root shallow and spread their roots over a wide area.

Age Of Bearing

One of the big advantages of budded or grafted nut trees over seedlings is their early bearing habit. Generally speaking, the budded or grafted tree begins bearing in one-third of the time required for seedling trees. We often have the improved English and black walnut trees bear the third year and sometimes the second. They may be counted upon to begin bearing nicely by the fifth year. The heart nut bears even younger, and it is not uncommon for these trees to bear a few nuts the second year.

The grafted pecan trees are no exception to the rule and bear in one-third of the time required for seedling trees.

The hybrid hickories have proven early bearers and heavy croppers, exceeding our own estimate of them made earlier. These trees, like the pecan, are of rapid growth and quickly make trees large enough to bear profitable crops.

Filberts are early bearers and it is not uncommon to get a few nuts the first year the bushes are planted. We have had quite a few customers write us they received from two to six nuts off of a small plant the first year.

The English Or Persian Walnut

The English walnut, when budded or grafted upon the native black walnut or other hardy stocks, ripen their wood growth up earlier and better than do seedling trees and are therefore considerably hardier than seedling trees. Grafted on this stock, the tree is also adapted to a wider range of soil, but the tree is more exacting in its climatic requirements than is the black walnut or other native nuts. While the English walnut can be grown with more or less success in all the eastern, middle and southern states, (and we have good reports on both the growth and bearing from all these states), our opinion is that its cultural range for commercial orcharding will follow that of the sweet cherry in the eastern and northern states and where the sweet cherry (Hearts and Bigarreaus) succeed, one need have no hesitation in making large plantings of our budded and grafted trees. These trees are doing well in the lake region, from New York to Michigan; also in Massachusetts and Connecticut, as well as farther south. They mature their nuts well in the short seasons of these northern states, but on the heavy black lands from southern Indiana westward, their success is irregular and uncertain. The trees are doing well in Kentucky and the Ozark mountain districts. Contrary to our earlier expectations, our grafted varieties of the English walnut are doing well in South Carolina, Georgia and Alabama, and it is believed the hardy, late vegetating Mayette and Franquette will prove to be a profitable commercial proposition in these states.

FRANQUETTE. One of the finest and most reliable walnuts, both east and west. The leading market variety in Oregon and Washington. Tree very hardy and reliable. The nut is medium to large; shell fairly thin and the cracking quality very good indeed. The Franquette is a very fine flavored nut and is free from the bitter tannin found in some walnuts. Our trees are of the Vrooman strain which is much the best of this type.

Wiltz Mayette

Vrooman Franquette

MAYETTE. An extra fine nut and fortunately a very hardy and reliable tree. Mayette is perhaps the largest nut with a thin shell and smooth and attractive that we have. The shell is thin and soft so that the nuts are easily cracked by crushing in the hand and the quality is the very best, the large white kernels being free from the bitter tannin found in many nuts. Our trees are of the Wiltz variety which is by far the most reliable of this type. This variety is doing fine here and elsewhere over the eastern Unitd States and is one of the few sorts that is perfectly self pollinating. The very large catkins (staminate bloom) hang a long time and shed an abundance of pollen.

EASTERN VARIETIES. We can supply a few Sinclair and Apline English walnuts this season. The Alpine variety is a larger nut than either the Franquette or Mayette English walnuts and is a good bearer here. The Sinclair is also proving very successful and is adaptable to a very cold climate.

Grafted trees of the above varieties 2 to 3 feet tall, $2.00 each or $20.00 per dozen. 3 to 4 feet tall, $2.25 each or $22.50 per dozen. 4 to 5 feet tall, $2.50 each or $25.00 per dozen. 5 to 6 feet tall, $2.75 each or $27.50 per dozen.

The Hybrid Hickory

Beaver, Laney and Fairbanks, being hybrids of the shagbark and bitternut, adapt themselves easily to a great variety of soils and climatic conditions. The bitternut hickory, one of the parents, is the most widely distributed of all our hickories according to Sargent. He says it is found growing naturally from the St. Lawrence River on the north to Florida on the south and westward to northeastern Nebraska, Oklahoma and Texas. The pure shagbark is strictly a northern species and does not grow very far south except along the mountain ranges, but these hybrids should succeed well into the Cotton Belt at least, if not to the Gulf Coast.

The pure shagbark, while one of the finest of our native nuts and unsurpassed in flavor, is of such slow growth and takes so long to come into bearing that few people can be interested in planting it.

The following varieties are hybrids, or crosses of the shagbark and the bitternut. Contrary to what one might naturally expect, the hybrids of these two species of hickory produce nuts remarkably fine in every way. Remarkable as it may seem, these hybrids seem to have inherited all the good points of both species and eliminated their faults. Like the bitternut parent, the trees are very rapid growers and very ornamental. The nut, which has all the good quality of flavor of the shagbark, has in addition the thin, soft shell of the bitternut. Many people have tested these nuts here the past two or three years and they have been practically unanimous in saying that the flavor of the nuts was extra fine. Many saying they were the finest shagbarks they ever ate. With all these good qualities, the trees bear very quickly, many of our grafts bearing nuts the third year and five or six year trees bearing excellent crops.

BEAVER. Originated in central Pennsylvania. The Beaver is one of the finest of this type and a very beautiful tree. The tree bears quickly and is very prolific. Perhaps the best of all these hybrids.

FAIRBANKS. From east central Iowa. One of the best of the type and very prolific. Tree very hardy and ripens its crop very early here.

LANEY. Named by Dr. Sargent for the Superintendent of the Rochester Parks, Mr. C. C. Laney. The original tree stands in the Rochester Parks and is a remarkably fine specimen. The nut has a very thin shell, nut full meated and of excellent quality.

Grafted trees of above varieties 2 to 3 feet tall, $2.25 each or $22.50 per dozen. 3 to 4 feet tall, $2.50 each or $25.00 per dozen. 4 to 5 feet tall, $2.75 each or $27.50 per dozen. 5 to 6 feet tall, $3.00 each or $30.00 per dozen.

The Northern Pecans

The Northern Pecans are as hardy as the other hickories and in this regard should not be confused with the southern pecan. In a wild or natural state, the pecan grows from Terre Haute, Ind., and Clinton, Iowa, on the north, to the Gulf Coast on the south. The tree grows in the river bottoms and will succeed on land that is too low and damp for most trees. Because of this, it was formerly thought that the tree required excessive moisture for success, but this was long ago disproven by the thousands of trees growing thriftily and bearing well on high and dry locations and on a wide range of

Pecan Nut cluster, natural size, grown here.

soils. The pecan has proven to do well on even light sandy soil, if the soil fertility is kept up, as well as on the clay and clay loam soils. The varieties we are propagating are from Indiana, Iowa and Missouri and the trees are perfectly hardy.

BUTTERICK. From near Grayville, Ill. The old Butterick tree is one of the "giants," and has been bearing beyond the memory of the oldest inhabitants. The nut is one of the largest of the Indiana group and a real paper-shell of excellent quality. The original tree is a heavy and regular bearer. The Butterick combines large size, with a real paper-shell nut of high

quality and a rapid growing tree that bears very early, and is perhaps the best all round pecan of the Indiana group.

GREENRIVER. Originated in Henderson Co., Ky. The nut is medium size; shell thin; kernel full and plump and of the best quality.

INDIANA. From Knox Co., Ind. One of the largest of the Indiana pecans and one of the best. The nut is thin shelled, full meated and of very good quality. The tree is a very heavy bearer. One of the best pecans.

NIBLACK. Originated in Knox Co., Ind. Named for Hon. Mason J. Niblack, Vincennes, Ind. Nut medium to large; shell very thin; kernel full and plump and of the very best quality. Cracking quality the very best.

POSEY. From Gibson Co., Ind. One of the largest and finest pecans of this group. The nut is very large and a real paper-shell. The cracking quality is the very best. The tree has very large foliage and is very ornamental.

BUSSERON. Supposed to be the parent of the Indiana pecan as the nuts are much alike as to size, shape and quality and the trees are growing not far apart. The Busseron is much the older and larger of the two trees. The old Busseron tree is said to be the greatest bearer of any pecan tree in the State of Indiana, making the variety a good one.

MARQUARDT. The Marquardt is perhaps the finest variety of the pecan-shellbark hybrids, originating in Iowa. The tree is very hardy, a rapid grower and very ornamental and will succeed under neglect where most trees would fail. The nut, which is large and long, resembles the pecan more closely and is thin shelled and a good cracker. The kernel is very large, plump and the blending of the pecan-hickory flavor gives it a distinct and very delightful flavor.

Grafted pecan trees of the above varieties 2 to 3 feet tall, $2.00 each or $20.00 per dozen. 3 to 4 feet tall, $2.25 each or $22.50 per dozen. 4 to 5 feet, $2.50 each or $25.00 per dozen.

Posey Indiana Niblack Butterick

The Heart Nuts.

The Heart Nut

The Heart Nut, juglans cordiformis, from Japan, is very rare in this country for the reason that it is only a "Sport" or variation from the common Japan walnut, juglans sieboldiana, according to Sargent, and almost invariably reverts to that type or species from seed. Owing to the extra cracking quality of the nut, the rapid and luxuriant growth, and early and prolific bearing of the tree, the Heart Nut is, one of our most valuable nut bearing trees.

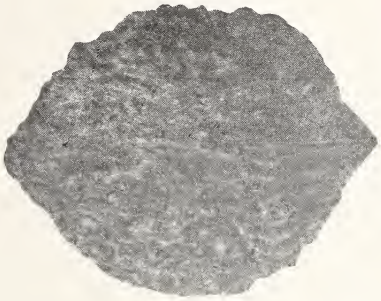
Those looking for a nut tree that will equal the populars, maples and willows in extreme rapid growth should plant the Heart Nut. Besides equaling these trees in extreme rapid growth, the Heart Nut tree is far more valuable as an ornamental. The tree has very large, almost tropical looking foliage. The nut is heart shaped, smooth, brown in color and is of excellent quality, having a flavor closely resembling our butternut. The nuts are borne in clusters of from five to fifteen nuts.

Budded trees of both Bates and Faust varieties, 2 to 3 feet tall, $2.50 each or $25.00 per dozen. 3 to 4 feet tall, $2.75 each or $27.50 per dozen. 4 to 5 feet tall, $3.00 each or $30.00 per dozen. 5 to 6 feet tall, $3.25 each or $32.50 per dozen. 6 to 7 feet tall, $3.50 each or $35.00 per dozen.

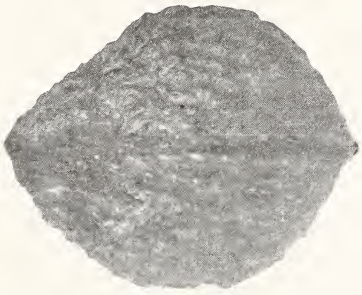
The American Black Walnut

The Black Walnut grows naturally from Canada to Florida and from Maine to the Great Divide, and on about all kinds of soils and locations. The climate of Colorado is especially trying on trees, but the black walnut is doing well there. Our grafted trees are doing well in Washington and Oregon.

The black walnut is one of our principle forest trees in the U. S. and will thrive with little or no attention as do other trees of the same type. This, when we consider the healthiness and longevity of the tree, makes the planting of the black walnut one of the surest and most attractive propositions.



Ohio



Stabler

OHIO. From Northern Ohio, named and introduced by the late Mr. J. F. Jones. Nut medium to large; shell, thin; kernel full of good quality. An excellent cracking nut, and the halves of the kernels can be removed entire in most cases. Tree is a good grower and very early bearer.

STABLER. Originated in Maryland. One of the finest black walnuts and the best of all in cracking quality. The kernels being easily removed in halves. Nut medium size; shell thin; kernel full, rich, and of fine quality. A remarkably fine black walnut.

THOMAS. Originated with the late Jos. Thomas, King of Prussia, Pa. One of the finest black walnuts yet found and the best of all the large nuts in cracking quality. Nut very large; kernel large, light colored and of very good quality. The tree is a wonderful grower, fully doubling the ordinary black walnut growth.

TEN EYCK. Originated at S. Plainfield, N. J. The Ten Eyck is the thinnest shelled black walnut that we have. The nut is medium to large; kernel very full and plump and of very fine quality.

Grafted trees of above varieties 2 to 3 feet tall, $2.00 each or $20.00 per dozen. 3 to 4 feet tall, $2.25 each or $22.50 per dozen. 4 to 5 feet tall, $2.50 each or $25.00 per dozen. 5 to 6 feet tall, $2.75 each or $27.00 per dozen. 6 to 7 feet tall, $3.00 each or $30.00 per dozen.

The Filbert Or European Hazel

The Filbert is quite hardy and will succeed anywhere the English walnut will or possibly farther north. Like the English walnut, the filbert does not thrive in the Gulf Coast section or the so-called "Planes States" west of the Mississippi River, presumbly because of the warmer summers, but it is doing fine generally in the Eastern U. S. and fruiting well, where the proper varieties are planted, as far north as Northern New York, Michigan and

Canada. The principle commercial planting of the filbert to date has been in Oregon and Washington, but our observation and experience leads us to the conclusion that the filbert and its hybrids are destined to become one of our most profitable nuts to grow in the Eastern U. S. The nuts ripen earlier here too and can be put on the market several weeks ahead of the western product.

Our test orchard of filberts here, embracing over 30 varieties, planted as fillers in the pecan orchard, has proven of unusual interest and value in testing out varieties and working out the matter of pollination. It has been repeatedly stated by the Oregon and Washington growers that no variety of filberts is self pollinating and none will bear more than a few nuts planted alone without the aid of pollen from other varieties. Our experience with them, embracing a large number of varieties, leads us to the same conclusion. We have selected just a few of the very best filberts that can be counted upon to cross pollinate and bear good and regular crops of the finest nuts.

For home use the filbert is especially desirable, owing to the high quality of the nut and the ease with which the kernel can be extracted. The plant, growing about the size of a peach or plum tree, is ornamental and fits in well in odd places and among ornamentals.

For market planting the filbert appeals to those wanting quick returns, especially as the plants begin fruiting almost as soon as planted. The plants live to be old and are adapted to permanent plantings, or they can be used as fillers among larger growing nut or fruit trees for which purpose they are admirably adapted, as they begin fruiting quickly and soon produce profitable crops of nuts. The plants also stand considerable shade and bear good crops of nuts right under the larger growing trees. The cracking quality is the best of any hardy nut known. The kernel simply rolls out of a solid lump ready to put in the mouth when the nut is cracked. The filbert is the richest in food value of all the hardy nuts, according to the analysis.

English Aveline Barcelona Du Chilly

BARCELONA. A very large, roundish nut. This is the leading commercial sort being planted in Oregon and Washington where it bears very large crops. Although it blooms early here, Barcelona is one of the best croppers we have. It blooms over a long period and needs two or three pollinators for the best results. Plant Aveline for early and Du Chilly to pollinate the later bloom. Tree very vigorous and makes the largest tree of all the filberts.

DU CHILLY. This is my favorite filbert of the European group. In the west it is said to not be nearly so strong a grower as Barcelona, but here it is one of the most vigorous growers and one of the heaviest bearers. The nut is very large and the kernel very large, clean and attractive and of the best quality.

WHITE AVELINE. Nut not extra large, but the variety has so many good points it should be in all collections. The quality and flavor of the nut is superb, being clean and attractive and always of the highest quality. One of the best pollinators to plant with Barcelona, also quite satisfactory for Du Chilly. It is a profuse bloomer and scatters its pollen over a larger season than do most other varieties. Should be in all home collections and enough for adequate pollination at least in all commercial plantings.

JONES HYBRID. Named corylus jonesii, by Sargent. This new strain of filbert combines the hardiness of the American hazel, corylus americana, with the reliable fruiting quality of the European filbert, corylus avellana. Nuts are large and smooth and of fine quality. There was originally over 500 trees of this cross to be tested. They have now all been discarded but the best and healthiest plants. The nuts are large, some larger by far than the European filberts. Flavor is much better than either the American hazel or the European filbert.

Prices of fine, well rooted plants on own roots as follows:

1 to 2 feet tall,	$1.00 each;	$10.00 per dozen.
2 to 3 feet tall,	1.50 each;	15.00 per dozen.
3 to 4 feet tall,	2.00 each;	20.00 per dozen.
4 to 5 feet tall,	2.25 each;	22.50 per dozen.
5 to 6 feet tall,	2.50 each;	25.00 per dozen.
6 to 7 feet tall,	2.75 each;	27.50 per dozen.

Planting And Care Of Nut Trees

It is important that nut trees be handled and planted carefully to get the best results. Keep the roots moist and expose as little as possible to sun or wind in handling. The holes should be dug amply wide to accommodate the roots and a few inches deeper than the roots are long. No manure or other coarse material should be used in the holes about the roots. A few handfuls of bone meal or tankage, mixed with the soil about the roots, will do no harm and will give good results. Only good top soil should be used in filling the holes, and this must be well firmed about the roots, while the tree is being planted by tamping with the spade or shovel handle or a tamping stick with a smooth, rounded end, that will allow the earth to be well tamped and at the same time, not bruise the roots. Most failures in transplanting are due to the planter not firming the earth well about the roots of the tree or from using water in the holes as the trees are being planted. If water is used and the soil handled while wet, it will harden and shrink away from the roots in drying. For the same reason, trees should never be planted soon after a heavy rain, or at any time when the ground is very wet. If trees arrive when the ground is very wet, heel them in or put in the cellar till the ground is in condition to plant. If the ground is dry, so much the better for plant-

ing, and trees may be watered after they are planted. Remove a shovel of earth on two sides of the tree, and a foot or more away; fill the holes with water and after this has soaked in, put the dirt back, leaving a loose mulch on top. If the clay is thrown out and away from the holes, and only top soil used in filling the holes—taking this top soil from a circle surrounding the tree, when the tree is planted, it will be surrounded by a depression or basin a few inches below the surface level. This is a decided advantage, with such trees as the pecan, walnut and persimmon, as we have found by several years' experience. These trees may be planted this way either spring or fall and on any land not naturally wet. Trees planted in this way not only live better, but grow much faster, as the basin about the tree gathers both moisture and fertility during rains, and is eventually filled up with the most fertile soil. This method of planting is especially desirable where trees are to be grown without cultivation. It is possibly, by this method of planting, supplemented with an annual mulch, to grow vigorous trees and profitable orchards easily and cheaply on rough, cheap land, that would be quickly ruined by erosin, if cultivated. By sowing sweet clover or other strong growing legumes, a plentiful supply of mulching material can be grown right where it is needed and at the same time, the land improved and built up.

NUT TREES MUST HAVE THE TOPS REDUCED or cut back, either before or after planting. This forces an early and stronger growth and induces the formation of new feeding roots and the tree is well established in its new location much sooner. If the top over-balances the root system to any preciable extent, the over-taxed roots will simply become exhausted and no new roots will form, with the result that even though the tree may live, it will linger along several years before getting started. The top should be reduced one-half or two-thirds, depending upon the size of the tree and its root system.

TRAINING THE TREES. A four or five foot tree, when cut back to two feet, will usually throw out several strong shoots, and this is just what is wanted. These shoots, being low, induce a quicker and stronger root formation and a sturdier tree. The head of the tree will not be wanted so low. but all growth should be allowed to remain until the tree is well established. The most vigorous shoot may then be selected and trained to form the future tree. This can be trained up-right, by tieing to a stake where necessary. The tree should become well established in its new location by the end of the second growing season when the surplus shoots may be removed and all of the sap thrown into the shoot selected to form the tree.

DISTANCE FOR PLANTING. Pecans and black walnuts, 50 to 60 feet apart; English walnuts, 40 to 50 feet apart; filberts and almonds, 15 to 20 feet apart; Shagbarks, 40 feet apart.

Pecans, English and black walnuts do not need all the room given them for 12 to 15 years and fillers or smaller growing nut or fruit trees may be planted between them to good advantage; also any cultivated farm of garden crop may be planted between the trees, as they are little in the way of cultivation for several years.